

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: 09/977,615B
Source: 1Fw16
Date Processed by STIC: 3/19/05

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:45

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

3 <110> APPLICANT: EraGen Biosciences, Inc.
 4 Grenier, Jennifer
 5 Marshall, David
 6 Prudent, James
 7 Richmond, Craig
 8 Roesch, Eric
 9 Scherrer, Christopher
 10 Sherrill, Christopher
 11 Ptacin, Jerod
 13 <120> TITLE OF INVENTION: Solid Support Assay Systems and Methods Utilizing Non-
 Natural
 14 Bases
 16 <130> FILE REFERENCE: PAT015-US5
 18 <140> CURRENT APPLICATION NUMBER: 09/977,615B
 19 <141> CURRENT FILING DATE: 2001-10-15
 21 <150> PRIOR APPLICATION NUMBER: 60/240,397
 22 <151> PRIOR FILING DATE: 2000-10-14
 24 <150> PRIOR APPLICATION NUMBER: 60/282,831
 25 <151> PRIOR FILING DATE: 2001-04-10
 27 <150> PRIOR APPLICATION NUMBER: 09/861,292
 28 <151> PRIOR FILING DATE: 2001-05-18
 30 <150> PRIOR APPLICATION NUMBER: 60/293,259
 31 <151> PRIOR FILING DATE: 2001-05-22
 33 <160> NUMBER OF SEQ ID NOS: 165
 35 <170> SOFTWARE: PatentIn version 3.2
 37 <210> SEQ ID NO: 1
 38 <211> LENGTH: 10
 39 <212> TYPE: DNA
 40 <213> ORGANISM: Artificial
 42 <220> FEATURE:
 43 <223> OTHER INFORMATION: synthetic oligonucleotide
 46 <220> FEATURE:
 47 <221> NAME/KEY: modified_base
 48 <222> LOCATION: (3)..(3)
 49 <223> OTHER INFORMATION: n represents iso-cytosine
 52 <220> FEATURE:
 53 <221> NAME/KEY: modified_base
 54 <222> LOCATION: (6)..(6)
 55 <223> OTHER INFORMATION: n represents iso-cytosine
 59 <400> SEQUENCE: 1
 W--> 60 gangtntgtc
 63 <210> SEQ ID NO: 2
 64 <211> LENGTH: 10
 65 <212> TYPE: DNA

Does Not Comply
 Corrected Diskette Needed

PP. 4, 6-7

10

RAW SEQUENCE LISTING

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:45

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

```

66 <213> ORGANISM: Artificial
68 <220> FEATURE:
69 <223> OTHER INFORMATION: synthetic oligonucleotide
71 <220> FEATURE:
72 <221> NAME/KEY: modified_base
73 <222> LOCATION: (2)..(2)
74 <223> OTHER INFORMATION: n represents iso-cytosine
76 <220> FEATURE:
77 <221> NAME/KEY: modified_base
78 <222> LOCATION: (6)..(6)
79 <223> OTHER INFORMATION: n represents iso-cytosine
81 <400> SEQUENCE: 2
W--> 82 cngttnntcc 10
85 <210> SEQ ID NO: 3
86 <211> LENGTH: 10
87 <212> TYPE: DNA
88 <213> ORGANISM: Artificial
90 <220> FEATURE:
91 <223> OTHER INFORMATION: synthetic oligonucleotide
94 <220> FEATURE:
95 <221> NAME/KEY: modified_base
96 <222> LOCATION: (3)..(3)
97 <223> OTHER INFORMATION: n represents iso-cytosine
99 <220> FEATURE:
100 <221> NAME/KEY: modified_base
101 <222> LOCATION: (7)..(7)
102 <223> OTHER INFORMATION: n represents iso-cytosine
104 <400> SEQUENCE: 3
W--> 105 ggnttgntag 10
108 <210> SEQ ID NO: 4
109 <211> LENGTH: 10
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial
113 <220> FEATURE:
114 <223> OTHER INFORMATION: synthetic oligonucleotide
117 <220> FEATURE:
118 <221> NAME/KEY: modified_base
119 <222> LOCATION: (4)..(4)
120 <223> OTHER INFORMATION: n represents iso-cytosine
122 <220> FEATURE:
123 <221> NAME/KEY: modified_base
124 <222> LOCATION: (6)..(6)
125 <223> OTHER INFORMATION: n represents iso-cytosine
127 <400> SEQUENCE: 4
W--> 128 cttnngntctc 10
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 10
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial

```

RAW SEQUENCE LISTING

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:45

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

```

136 <220> FEATURE:
137 <223> OTHER INFORMATION: synthetic oligonucleotide
140 <220> FEATURE:
141 <221> NAME/KEY: modified_base
142 <222> LOCATION: (2)..(2)
143 <223> OTHER INFORMATION: n represents iso-cytosine
145 <220> FEATURE:
146 <221> NAME/KEY: modified_base
147 <222> LOCATION: (6)..(6)
148 <223> OTHER INFORMATION: n represents iso-cytosine
150 <400> SEQUENCE: 5
W--> 151 cntcangaac 10
154 <210> SEQ ID NO: 6
155 <211> LENGTH: 10
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial
159 <220> FEATURE:
160 <223> OTHER INFORMATION: synthetic oligonucleotide
163 <220> FEATURE: -
164 <221> NAME/KEY: modified_base
165 <222> LOCATION: (5)..(5)
166 <223> OTHER INFORMATION: n represents iso-cytosine
168 <220> FEATURE:
169 <221> NAME/KEY: modified_base
170 <222> LOCATION: (8)..(8)
171 <223> OTHER INFORMATION: n represents iso-cytosine
173 <400> SEQUENCE: 6
W--> 174 gtagntangc 10
177 <210> SEQ ID NO: 7
178 <211> LENGTH: 10
179 <212> TYPE: DNA
180 <213> ORGANISM: Artificial
182 <220> FEATURE:
183 <223> OTHER INFORMATION: synthetic oligonucleotide
186 <220> FEATURE:
187 <221> NAME/KEY: modified_base
188 <222> LOCATION: (4)..(4)
189 <223> OTHER INFORMATION: n represents iso-cytosine
191 <220> FEATURE:
192 <221> NAME/KEY: modified_base
193 <222> LOCATION: (6)..(6)
194 <223> OTHER INFORMATION: n represents iso-cytosine
196 <400> SEQUENCE: 7
W--> 197 ggangntaac 10
200 <210> SEQ ID NO: 8
201 <211> LENGTH: 10
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial
205 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:45

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

206 <223> OTHER INFORMATION: synthetic oligonucleotide
209 <220> FEATURE:
210 <221> NAME/KEY: modified_base
211 <222> LOCATION: (2)..(2)
212 <223> OTHER INFORMATION: n represents iso-cytosine
214 <220> FEATURE:
215 <221> NAME/KEY: modified_base
216 <222> LOCATION: (7)..(7)
217 <223> OTHER INFORMATION: n represents iso-cytosine
219 <400> SEQUENCE: 8

W--> 220 cngtatngtg

10

223 <210> SEQ ID NO: 9
224 <211> LENGTH: 10
225 <212> TYPE: DNA
226 <213> ORGANISM: Artificial
228 <220> FEATURE:
229 <223> OTHER INFORMATION: synthetic oligonucleotide
232 <220> FEATURE:
233 <221> NAME/KEY: modified_base
234 <222> LOCATION: (4)..(4)
235 <223> OTHER INFORMATION: n represents iso-cytosine
237 <220> FEATURE:
238 <221> NAME/KEY: modified_base
239 <222> LOCATION: (10)..(10) *n is at location 9*
240 <223> OTHER INFORMATION: n represents iso-cytosine
242 <400> SEQUENCE: 9

W--> 243 catnggtang

10

246 <210> SEQ ID NO: 10
247 <211> LENGTH: 10
248 <212> TYPE: DNA
249 <213> ORGANISM: Artificial
251 <220> FEATURE:
252 <223> OTHER INFORMATION: synthetic oligonucleotide
255 <220> FEATURE:
256 <221> NAME/KEY: modified_base
257 <222> LOCATION: (5)..(5)
258 <223> OTHER INFORMATION: n represents iso-cytosine
260 <220> FEATURE:
261 <221> NAME/KEY: modified_base
262 <222> LOCATION: (9)..(9)
263 <223> OTHER INFORMATION: n represents iso-cytosine
265 <400> SEQUENCE: 10

W--> 266 gattntcgnc

10

269 <210> SEQ ID NO: 11
270 <211> LENGTH: 10
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial
274 <220> FEATURE:
275 <223> OTHER INFORMATION: synthetic oligonucleotide

RAW SEQUENCE LISTING

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:45

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

```

278 <220> FEATURE:
279 <221> NAME/KEY: modified_base
280 <222> LOCATION: (4)..(4)
281 <223> OTHER INFORMATION: n represents iso-cytosine
283 <220> FEATURE:
284 <221> NAME/KEY: modified_base
285 <222> LOCATION: (6)..(6)
286 <223> OTHER INFORMATION: n represents iso-cytosine
288 <400> SEQUENCE: 11
W--> 289 gtttnangacc 10
292 <210> SEQ ID NO: 12
293 <211> LENGTH: 10
294 <212> TYPE: DNA
295 <213> ORGANISM: Artificial
297 <220> FEATURE:
298 <223> OTHER INFORMATION: synthetic oligonucleotide
301 <220> FEATURE:
302 <221> NAME/KEY: modified_base
303 <222> LOCATION: (2)..(2)
304 <223> OTHER INFORMATION: n represents iso-cytosine
306 <220> FEATURE:
307 <221> NAME/KEY: modified_base
308 <222> LOCATION: (6)..(6)
309 <223> OTHER INFORMATION: n represents iso-cytosine
311 <400> SEQUENCE: 12
W--> 312 cngaangatc 10
315 <210> SEQ ID NO: 13
316 <211> LENGTH: 10
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial
320 <220> FEATURE:
321 <223> OTHER INFORMATION: synthetic oligonucleotide
324 <220> FEATURE:
325 <221> NAME/KEY: modified_base
326 <222> LOCATION: (4)..(4)
327 <223> OTHER INFORMATION: n represents iso-cytosine
329 <220> FEATURE:
330 <221> NAME/KEY: modified_base
331 <222> LOCATION: (9)..(9)
332 <223> OTHER INFORMATION: n represents iso-cytosine
334 <400> SEQUENCE: 13
W--> 335 caantacgnc 10
338 <210> SEQ ID NO: 14
339 <211> LENGTH: 10
340 <212> TYPE: DNA
341 <213> ORGANISM: Artificial
343 <220> FEATURE:
344 <223> OTHER INFORMATION: synthetic oligonucleotide
347 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/977,615B

DATE: 03/19/2005
TIME: 10:30:46

IFW

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt
Output Set: N:\CRF4\03192005\I977615B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 3,6
Seq#:2; N Pos. 2,6
Seq#:3; N Pos. 3,7
Seq#:4; N Pos. 4,8
Seq#:5; N Pos. 2,6
Seq#:6; N Pos. 5,8
Seq#:7; N Pos. 4,6
Seq#:8; N Pos. 2,7
Seq#:9; N Pos. 4,9
Seq#:10; N Pos. 5,9
Seq#:11; N Pos. 4,6
Seq#:12; N Pos. 2,6
Seq#:13; N Pos. 4,9
Seq#:14; N Pos. 4,8
Seq#:15; N Pos. 2,6,7
Seq#:16; N Pos. 4,8,9
Seq#:17; N Pos. 2,6,9
Seq#:18; N Pos. 3,6
Seq#:19; N Pos. 3,4,7
Seq#:20; N Pos. 3,6
Seq#:21; N Pos. 5,8,9
Seq#:22; N Pos. 5,7
Seq#:23; N Pos. 5,8
Seq#:24; N Pos. 5,8
Seq#:25; N Pos. 5,7,8
Seq#:26; N Pos. 2,7
Seq#:27; N Pos. 2,4,9
Seq#:28; N Pos. 2,3,7
Seq#:29; N Pos. 5,8
Seq#:30; N Pos. 5,7
Seq#:31; N Pos. 3,7
Seq#:32; N Pos. 4,8
Seq#:33; N Pos. 4,9
Seq#:34; N Pos. 4,7,9
Seq#:35; N Pos. 2,7
Seq#:36; N Pos. 3,7
Seq#:37; N Pos. 2,7
Seq#:38; N Pos. 4,9
Seq#:39; N Pos. 3,4,9
Seq#:40; N Pos. 2,6
Seq#:41; N Pos. 2,6,9
Seq#:42; N Pos. 3,6
Seq#:43; N Pos. 4,8
Seq#:44; N Pos. 5,8

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/977,615B

DATE: 03/19/2005
TIME: 10:30:46

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt
Output Set: N:\CRF4\03192005\I977615B.raw

Seq#:45; N Pos. 5,7
Seq#:46; N Pos. 4,8
Seq#:47; N Pos. 2,7
Seq#:48; N Pos. 3,6
Seq#:49; N Pos. 3,7
Seq#:50; N Pos. 3,4,9
Seq#:51; N Pos. 2,7

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75
Seq#:76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99
Seq#:100,101,102,103,113,114,115,116,117,118,119,120,121,122,123,124,125,126
Seq#:127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142,143,144
Seq#:145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160,161,162
Seq#:163,164,165

VERIFICATION SUMMARY

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:46

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

L:60 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:197 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:335 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:358 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:386 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:493 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:516 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:613 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:743 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:812 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:835 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:909 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:955 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:983 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1006 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:1034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1057 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:1080 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1103 M:283 W: Missing Blank Line separator, <400> field identifier
L:1104 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:1127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:1150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:1173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0

VERIFICATION SUMMARY

DATE: 03/19/2005

PATENT APPLICATION: US/09/977,615B

TIME: 10:30:46

Input Set : A:\Multi-Code Seq Listing-2005-Mar.ST25.txt

Output Set: N:\CRF4\03192005\I977615B.raw

L:1196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0

L:1219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0

L:1247 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0